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Final Technical Report for NASA Grant NAG5-2552
Solar and Magnetospheric Inputs to the MLTI Region
IDS Investigation for the TIMED Mission
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This document is a final report on activities carried out with support from NASA grant #NAG 5-2552 during the funding period of 4/1/94 through 12/31/94. The main focus of efforts during this time period was on redefining the TIMED mission to fit within the programmatic and cost guidelines of NASA Space Physics Division. To this end, the PI participated in TIMED SWG meetings during which 4 major alternative mission scenarios were developed. For each of these lower-cost missions, a focused science plan was developed which elucidated the science objectives and mission requirements. This information was supplied to a selection panel appointed by NASA to study alternative lower cost options.

The selection panel announced a descope of the TIMED instrument complement in October 1994, along with the accompanying refinement of the science focus for the mission. As directed by the project office at APL, the PI (along with her co-I team as required) continues to participate in the following team activities, necessitated by the change in scope of the TIMED mission. These include:

(1) Development of an integrated science plan that reflects the new mission priorities. Progress has been made in this regard. A new executive summary of the mission, which reflects the focusing of the mission to address the energetics of the MLTI has been constructed. The PI has been instrumental in developing illustrative materials for major energetic processes that are included in the mission summary materials. Work continues on the detailed integrated science plan.

(2) With due consideration of the new science focus of the mission, discussions were carried out among the instrument PIs and IDS's in cooperation with the project office at APL which ultimately resulted in the selection of a 70°+ precessing polar orbit for the mission.

(3) More focused team investigations, consistent with the new TIMED science objectives, are under development. Particularly important is consideration of the contribution of ground-based facilities. First results were presented at the TIMED SWG meeting in mid-December.